



**National
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Title : Cracking of Skin of the Main Rotor Blade of an Helicopter

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Abstract : The main rotor blade of an helicopter which had developed cracks on the aluminium alloy skin was sent by CRE (Helicopter) for investigation of the mode of cracking. Visual and electron microscopic investigations revealed that a fatigue crack had originated at the trailing edge of the blade on the sandwiched aluminium alloy centre sheet on the under side of a rivet hole. This crack had then propagated through the outer skin leading to a sudden tearing off of the sheet metal.